

Notice of Allowability

Application No.

10/044,045

Examiner

Devona E. Faulk

Applicant(s)

KASHANI, AHMAD REZA

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 5/4/2007.
2. ☒ The allowed claim(s) is/are 34-41.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Response to Remarks

1. The applicant has cancelled claims 1-33 and 42-66.
2. Claims 34-41 were indicated as allowable in the previous office action and remain in allowable form.

Allowable Subject Matter

3. Claims 34-41 re allowed.

The following is an examiner's statement of reasons for allowance: Regarding claims 34,40 and 41 prior art Kashani (US 5,974,155) discloses a system for actively damping noise comprising: an enclosure defining a plurality of acoustic modes; an acoustic wave sensor positioned within said enclosure, wherein said acoustic wave sensor is operative to produce a first signal representative of said plurality of acoustic modes; an acoustic wave actuator responsive to a second signal and positioned within said enclosure, wherein said acoustic wave actuator is substantially collocated with said acoustic wave sensor; and an electronic feedback loop defining an input coupled to said first signal and an output, wherein said electronic feedback loop is operative to generate said second signal at said output by applying a feedback loop transfer function to said first signal, and wherein said feedback loop transfer function comprises a second order differential equation including a first variable representing a predetermined damping coefficient and a second variable representing a tuned natural frequency, said second variable representing said tuned natural frequency is selected to be tuned to a natural

frequency of at least one acoustic mode of said plurality of acoustic modes said feedback loop transfer function defines a frequency response having a characteristic maximum gain substantially corresponding to the value of said tuned natural frequency, and wherein said feedback loop transfer function creates a 90 degree phase lead substantially at said tuned natural frequency. The prior art or combination thereof fails to disclose or make obvious a motion sensor secured to a panel of said enclosure wherein said motion sensor is configured to produce a motion sensor signal representative of at least one of said plurality of low-frequency acoustic modes and wherein said vibro-acoustic controller defines a second electronic feedback loop input coupled to said motion sensor and a second electronic feedback loop output and wherein said electronic feedback loop is configured to generate said second electronic feedback loop output signal by applying said feedback loop transfer function to said motion sensor signal. Therefore, the prior art or combination thereof fails to disclose or make obvious a system and method for actively damping boom noise.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Devona E. Faulk whose telephone number is 571-272-7515. The examiner can normally be reached on 8 am - 5 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DEF


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